# Successful Reduction of Prolonged Fasting Times in Cardiothoracic Surgery.

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## Introduction

International pre-operative fasting guidelines are well established; recommending a 2 hour fasting period for clear fluids in adults[1]. Despite this, actual fasting periods are many times in excess of the recommended time.

Evidence shows that incidence of pulmonary aspiration and associated morbidity is rare[2]. Prolonged fasting times however can lead to adverse effects such as dehydration, anxiety, post operative nausea and vomiting, metabolic derangements and delirium[3,4].

In the drive to optimise peri-operative care, there is a growing movement to reduce excessive fasting times. Here we present the implementation of a 'Sip Til Send' Quality Improvement initiative in a tertiary London Cardio-thoracic centre.

## Methods

An adult 'Sip Til Send' policy was devised following consultation and agreement of the anaesthetic department [Figure 1]. The timeline of implementation is as below [Figure 2]. An audit of baseline fasting data and following implementation was conducted for all elective cases. Emergency procedures were excluded from this policy. There was no change to fasting times for solids.

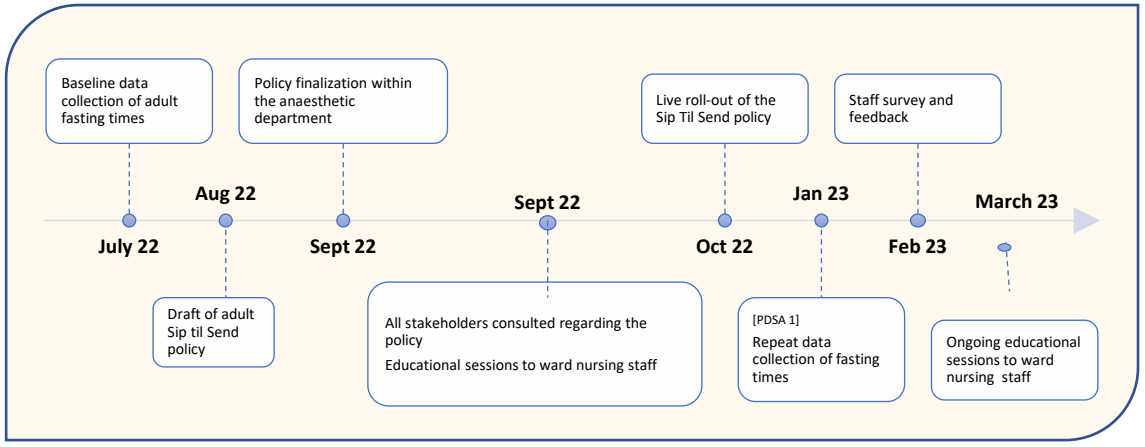



**Figure 2.** Timeline displaying the process of the Quality Improvement Project (QIP).

## Results

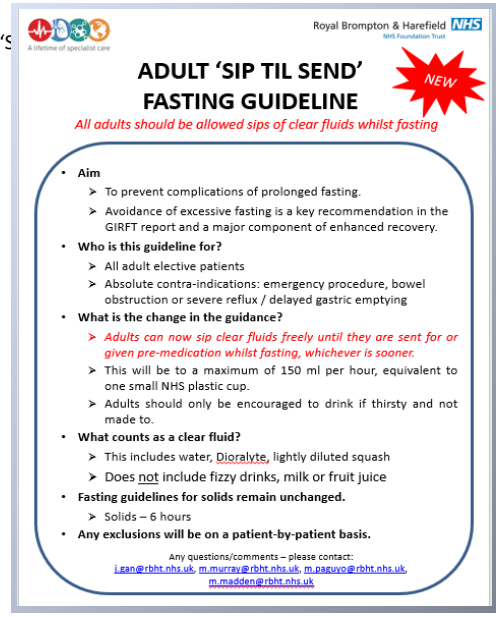
Baseline data (*n*=61) showed a median fluid fasting time of 7.6 hours (IQR 4.2-11.0 hours). Two months following the roll out of 'Sip Til Send', fasting times were re-audited (*n*=59). This showed a reduction of median fluid fasting time to 1.4 hours (IQR 0.8-2.3 hours). The distribution of fasting times pre, and post intervention is displayed in Figure 3.

Patients were asked to score their thirst from 1 (no thirst) to 10 (maximum thirst). Baseline data showed a median score of 7. This was reduced to a median score of 5 after the introduction of 'Sip Til Send'. All patients reported their fasting instructions were clearly communicated to them.

No adverse events or concerns were reported by the anaesthetic or surgical teams during the audit period. Longer term monitoring of potential resultant adverse events is currently being conducted, in line with our QIP process.

Survey data was collected from nursing staff following the educational sessions. 93% of nursing staff found the educational sessions useful. No concerns from nursing staff were reported.

**Figure 1.** The finalised 'S
Til Send' guideline.


Royal Brompton & Harefield NHS

**ADULT 'SIP TIL SEND' FASTING GUIDELINE**

NEW

*All adults should be allowed sips of clear fluids whilst fasting*

- **Aim**
  - To prevent complications of prolonged fasting.
  - Avoidance of excessive fasting is a key recommendation in the GIRFT report and a major component of enhanced recovery.
- **Who is this guideline for?**
  - All adult elective patients
  - Absolute contra-indications: emergency procedure, bowel obstruction or severe reflux / delayed gastric emptying
- **What is the change in the guidance?**
  - *Adults can now sip clear fluids freely until they are sent for or given pre-medication whilst fasting, whichever is sooner.*
  - This will be to a maximum of 150 ml per hour, equivalent to one small NHS plastic cup.
  - Adults should only be encouraged to drink if thirsty and not made to.
- **What counts as a clear fluid?**
  - This includes water, Dioralyte, lightly diluted squash
  - Does not include fizzy drinks, milk or fruit juice
- **Fasting guidelines for solids remain unchanged.**
  - Solids – 6 hours
- **Any exclusions will be on a patient-by-patient basis.**

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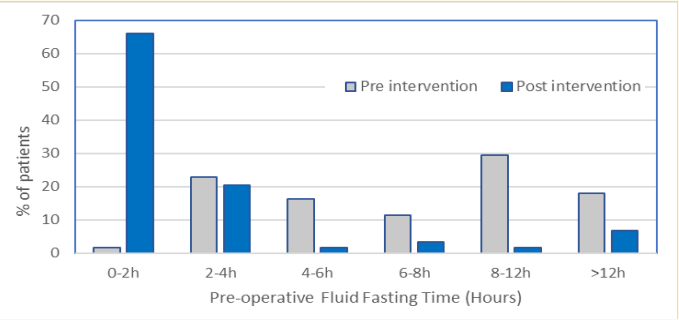


**Figure 3**. Distribution of Fasting Time for Fluids prior to, and after, the introduction of the 'Sip Til Send' policy.

## Conclusion

We have demonstrated a successful reduction fasting time for clear fluids times in an adult cardiothoracic patient cohort. This success was underpinned by collaborative, multi-dimensional team working, ranging from catering staff to all levels of ward and theatre staff.

We plan to repeat data collection and subsequent interventions in line with a Plan-Do-Cycle-Act approach to ensure sustained improvements and monitor for potential adverse events.

## Acknowledgements

This QIP was registered with the Trust Clinical Audit department. We would like to thank all staff involved for their support in making this QIP possible.

## References

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